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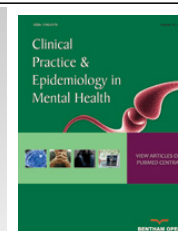
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# Clinical Practice & Epidemiology in Mental Health

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**RESEARCH ARTICLE**

## Working and Environmental Factors on Job Burnout: A Cross-sectional Study Among Nurses

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**Abstract:****Background:**

Burnout is a problem that impacts on the staff management costs and on the patient care quality.

**Objective:**

This work aimed to investigate some psychosocial factors related to burnout. Specifically, we explored the sample characteristics for moderate/high emotional exhaustion, cynicism and professional inefficacy, as well as the relationship between both working and environmental variables and burnout.

**Method:**

A cross-sectional study involving 307 nurses from one Italian hospital was carried out. A self-reported questionnaire was used to collect data. Data analysis was performed by using SPSS 19.0.

**Results:**

The results showed that there was a significant difference between nurses with low and moderate/high burnout in all the three components in almost all the examined organizational variables. In addition, we found that the aspects of working life had a significant impact on the three dimensions of burnout.

**Conclusions:**

The findings of this study not only can provide useful basis for future research in the field, but also can offer practical suggestions for improving nursing practice and promote effective workplace, thus reducing the risk burnout among nurses.

**Keywords:** Burnout, Nurses, Organizational variables, Organizational empowerment, Work environment.

## INTRODUCTION

Burnout is a common phenomenon in the field of nursing and health professions because of their continuous exposure to the suffering and pain of other people [1 - 3]. Burnout is a result of chronic stress in the work environment and it is defined by Pines and Maslach as an “*emotional and physical exhaustion syndrome which includes a reduction of personal skills, negative attitudes to work, and a loss of interest in patients*” [4].

Burnout is characterized by three specific dimensions (e.g., psychophysical exhaustion, cynicism, reduced

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professional achievement) identified for their features in symptoms [5], but closely interrelated and in sequential relationship [6]: an emotionally exhausted individual may decide to distance him/herself from work, thus developing a sense of cynicism. The latter can reduce the sense of accomplishment and personal effectiveness [7]. *Emotional exhaustion* is the result of a recurrent stress condition (e.g., emotional and physical), resulting in an individual's perception of excessive job demands in relation to personal resources [8]. *Cynicism* is a self-defense mechanism from exhaustion and disappointment, which aims to minimize one's own job involvement. *Reduced personal accomplishment or efficacy* is the self-reflexive dimension of burnout, which is characterized by a perception of inadequacy, loss of self-esteem and consequent feeling of personal failure. The sense of achievement and personal effectiveness is extremely important for each individual, because it represents one of the most important basic needs for human work motivation [9].

Scholars state that organizational factors in the work context may be a cause of chronic stress that leads to job burnout [1, 10]. If work environment is unable to meet individuals' needs, this can reduce their energy and enthusiasm, thus leading to negative consequences such as high absenteeism, poor job performance, mental diseases, anxiety, and job-related injuries [e.g. 11, 12, 13]. Today's organizations seem to focus mainly on economic results, thus losing sight of the importance of the human aspect of the work and the human resources valorization, especially in the healthcare setting. This dehumanization condition is a cause of an increased discrepancy between job demands and necessary resources for doing work, which can determine adaptation diseases such as job burnout [13 - 15]. Understanding factors affecting job burnout is important to care workers' psychosocial well-being, organizational effectiveness, and consequently patient health [16]. A main source of burnout is workload, which implies that workers feel overworked, thus reducing time and resources to adequately perform their activity [17]. In addition, a lack of job control can limit the employees' sense of autonomy to take decisions regarding their work. As a result, their sense of control over what they are doing is undermined and it may generate a condition of anxiety and exhaustion [17].

Many scholars [18, 19] discuss that the healthcare environment must change if the burnout phenomenon is to be limited. A way to contain the burnout risk is to promote empowering organizations [20, 21]. An Individual's empowerment happens when the work environment is able to allow nurses to do their work well. The aspects that foster organizational empowerment are receiving support, having opportunity for learning and growing, and access to resources necessary to provide care safely and effectively [22]. The empowered work environment increase levels of organizational commitment and feelings of self-efficacy of workers. As Cherniss [1] defines burnout as a consequence of a work environment that fails to support the workers to perform their work, an empowered work environment should increase feelings of autonomy and self-efficacy of workers, thus mitigating conditions of the nursing environment that lead to burnout.

Based on Maslach and Leiter [3]'s theoretical model, the aim of this study was to analyze job burnout levels in nursing staff and work and context factors affecting the three burnout dimensions (exhaustion, cynicism, and personal inefficacy). We firstly analyzed psycho-social factors in nurses with high and low burnout levels. Then, we detected the relationship between psycho-social factors and burnout.

While much it is known about the context factors preventing emotional exhaustion and the important role of job control [e.g. 23, 24.], the literature is still poor of studies focusing the sequential link from exhaustion to cynicism [25]. As cynicism is behavioral manifestation of burnout, which it translates in apathy and detachment behaviors towards patients, understanding how this link can be attenuated is critical for quality of care. Addressing this void in the literature it is important because healthcare context is a work setting with high exhaustion risk, in which excessive exposure to emotional job demands such as patient suffering and pain is expected. This study contributes to address this lack by showing the important role of organizational empowerment as a moderator which can reduce detrimental effects of cynicism.

## Hypothesis 1

Organizational empowerment moderates the positive relationship between emotional exhaustion and cynicism, such that the relationship is weaker when empowerment is high.

Another way to prevent burnout is acting on positive aspects such as communication and efficacy of team. Following Deci and Ryan [26] workers engage in interpersonal relationships at work not only to achieve their functional goals, but also because they fulfill their psychological needs for autonomy, competence, and relatedness. Good relationships and communication among staff would increase team efficacy, thus reducing maladaptive consequences

such as burnout [27]. Following previous studies [25], we considered personal efficacy as a burnout dimension whose development is simultaneous rather than sequential. The most part of the previous studies did not include this dimension in their analysis. As personal efficacy sense represents one of the most important basic needs for human work motivation [9], increasing personal accomplishment is extremely important for each worker. This study intends to analyze how team communication and team efficacy can represent important resources affecting personal (in)efficacy. Specifically, we postulated that team communication was positively related to team efficacy, which in turn was negatively related to personal inefficacy.

## Hypothesis 2

Team efficacy mediates the relationship between team communication and personal (in)efficacy.

## METHODS

### Sample and Procedure

The study involved a total of 542 nurses nested in 24 units from one Italian urban hospital. The study was approved by local ethics committees and formal authorization to recruit nurses was obtained from Health Directors of the hospital. We recruited nursing from the main areas (medicine, surgery, intensive care, and other services) of the hospital. A total of 356 nurses from 15 of 24 units adhered to the survey (65.7% participation rate). Nurses were verbally informed of the purpose of the study to ensure ethical clarity. A paper questionnaire was administered to nurses during work hours by the researchers. The nurses were informed that their participation was completely voluntary and anonymous. Informed consent to participate was assumed on receipt of the completed questionnaires.

### Instrument

The questionnaire included two main sections: a personal data section to reveal information about the age range, gender, unit and occupational tenure, *etc.* The other section included the burnout scale with the organizational variables of the study. Since some of the used scales have not an Italian validation, the questionnaire was opportunely translated by two mother tongue experts and translated again by two Italian experts through the back-translation procedure [28]. The following paragraph describes the scales used to measure all the study variables.

#### Burnout

A 16-item scale from Maslach Burnout Inventory (MBI) by Maslach, Jackson and Leiter [29], was used. The scale measures the three burnout dimensions: emotional exhaustion (5 items), cynicism (5 items) and personal inefficacy (6 items). For each item, nurses were asked to indicate their agreement level by using a 7-point scale ranging from 1 (*never*) to 7 (*daily*).

#### Organizational Empowerment

A 9-item reduced version of the Conditions of Work Effectiveness Questionnaire-II - CWEQ-II [30] was used. Three empowerment components were measured through three items each one: opportunity, resources, and support). Items were rated using a 5-point scale ranging from 1 (*never*) to 5 (*always*).

#### Workload

The 5-item sub-dimension of the Areas of Worklife Scale - AWS by Leiter and Maslach [31, 32] was used. Items were rated using a 5-point scale ranging from 1 (*strongly disagree*) to 5 (*totally agree*).

#### Job Control

Three items of the job control sub-dimension from Areas of Worklife Scale - AWS by Leiter and Maslach [31, 32] were used. Also in this case, items were rated using a 5-point scale ranging from 1 (*strongly disagree*) to 5 (*totally agree*).

#### Team Quality

To measure perceived quality of teamwork, an adapted version of ICU questionnaire [33] was used. The used version included two subscales: general communication (6 items) and perceived team efficacy (3 items). Items were

rated using a 5-point scale ranging from 1 (*strongly disagree*) to 5 (*totally agree*).

### Statistics Analysis

Job burnout was quantified by using scores identified by the authors for each sub-dimension [29]. In this way, three levels of burnout were identified: low, moderate, and high.

Confirmatory factor analysis was carried out to test the validity of the measures. Measurement analysis was carried out by comparing a 10-factor model to a one-factor model (in which all items loaded into a common factor). The model fit was assessed by using the Comparative Fit Index (CFI), the Incremental Fit Index (IFI), and the Root-Mean-Square Error of Approximation (RMSEA) [34]. A good model fit is reached when the cut-off value for IFI and CFI is  $\geq .90$ , and RMSEA  $\leq .08$  [35]. Both Inter-correlation and internal coherence between items were assessed by using Cronbach's Alpha ( $\alpha$ ). Analysis of variance (ANOVA) was carried out in order to compare mean values of nurses groups with low and moderate/high levels of burnout according to organizational variables of the study. Correlation analysis was conducted using Pearson coefficient. Moderating and mediating analyses were performed in order to test Hypothesis 1 and Hypothesis 2, respectively. We tested the moderating effect by using the PROCESS macro for SPSS [36]. Age, organizational tenure, and clinical area were included as control variables. Finally, the structure of the interaction was tested by following Aiken and West's procedure [37]. As recommended by MacKinnon Lockwood and Williams [38], 95% bias-corrected bootstrap confidence intervals (CI) were created with 5000 random resamples of original data to estimate the indirect effect of team communication on personal inefficacy through perceived team efficacy. Statistical analyses were carried out *via* SPSS 19.0 and AMOS 18.0 software.

## RESULTS

Overall, 307 questionnaires were entirely completed (86.2% response rate) and used for elaborating data. The response rate for each unit ranged from 52.9% to 100%. The remaining 49 questionnaires were discarded because they were empty or totally lacking for the personal data section. For this reason, we were unable to revisit characteristics of the individuals who refused completing questionnaires.

For the most part of the sample (85.5%), age ranged from 25 to 55 years, and with a prevalence of women (67.4%). For the most part of nurses (57.1%), organizational tenure was more than 10 years. Occupational tenure ranged from 1 to 3 years for 41.2%, from 4 to 10 years for 25.7%, and was more than 10 years for 32.9%.

Considering the total sample (N=307), the results showed moderate levels of burnout for all the three dimensions (Emotional exhaustion: M = 2.33, SD = 1.50, cut-off range  $\leq 2.00 - \geq 3.20$ ; Cynicism: M = 1.55, SD = 1.30, cut-off range  $\leq 1.00 - \geq 2.20$ ; Personal inefficacy: M = 4.59, SD = 1.01, cut-off range  $\leq 5.00 - \geq 4.00$ ).

Furthermore, we found that a substantial percentage of nurses reported moderate/high burnout levels for each dimension, specifically in cynicism (54.7%) and personal inefficacy (57.9%).

### Comparison Between Nurses with Low and Moderate/high Burnout Levels

Comparing nurses with low and moderate/high burnout levels, the results showed a significant difference for almost all the examined variables in association with emotional exhaustion. Specifically, nurses with moderate/high emotional exhaustion had low empowerment in terms of opportunity (*e.g.* poor opportunity to both gain new skills and knowledge and use skills and knowledge on the job), resources (*e.g.* poor time to accomplish job requirements and temporary help when needed), and support (*e.g.* poor helpful hints or problem solving advice when needed). Then, nurses with moderate/high level of emotional exhaustion referred to have an excessive workload and low job control which does not consent to provide an adequate patient care, as well as a low quality of team communication. Yet, there is no evidence for a significant difference between groups associated with perceived work team efficacy.

We found significant differences between nurses with low and moderate/high cynicism for all the examined organizational variables. Specifically, nurses with moderate/high cynicism levels referred low empowerment scores. Furthermore, nurses referred high workload and low job control scores, low quality of team communication, and low team efficacy to meet patients' care needs.

Finally, nurses with moderate/high personal inefficacy referred a low sense of organizational empowerment in terms of opportunity, resources, and support. Furthermore, nurses referred a low job control, a low quality of team communication, and a low perceived team efficacy. No significant difference between groups was found for perceived workload (see Table 1 for results).

Table 1. ANOVAs results for low and moderate/high levels of burnout.

		Opportunity	Resources	Support	Workload	Job control	Communication	Team efficacy
		M (SD)	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)
Emotional exhaustion	L n=161	3.34 (.98)	3.13 (.99)	3.05 (1.11)	2.56 (.72)	3.50 (.77)	3.57 (.79)	3.83 (.92)
	M/H n=146	3.02 (.96)	2.70 (.92)	2.74 (.95)	3.20 (.71)	3.17 (.86)	3.20 (.72)	3.69 (.82)
		F=8.75**	F=15.56***	F=5.45*	F=61.35***	F=13.04***	F=18.20***	F=1.82
		Opportunity	Resources	Support	Workload	Job control	Communication	Team efficacy
		M (SD)	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)
Cynicism	L n=139	3.39 (.94)	3.08 (.94)	3.14 (1.05)	2.70 (.74)	3.45 (.78)	3.63 (.82)	3.96 (.82)
	M/H n=168	3.02 (.99)	2.80 (1.00)	2.70 (1.00)	3.00 (.80)	3.26 (.86)	3.20 (.89)	3.60 (.89)
		F=11.43***	F=6.17*	F=14.81***	F=11.16***	F=4.26*	F=24.61***	F=12.84***
		Opportunity	Resources	Support	Workload	Job control	Communication	Team efficacy
		M (SD)	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)
Personal inefficacy	L n=131	3.50 (.99)	3.15 (1.00)	3.21 (1.14)	2.86 (.85)	3.62 (.74)	3.55 (.86)	3.98 (.86)
	M/H n=176	2.96 (.92)	2.76 (.94)	2.67 (.91)	2.87 (.74)	3.14 (.84)	3.29 (.69)	3.60 (.86)
		F=24.38***	F=11.98***	F=20.86***	F=0.12	F=27.10***	F=8.54**	F=15.22***

Note. N=307. L=Low burnout, M/H= Moderate/High burnout. \*p<.05, \*\*p<.01, \*\*\*p<.001.

### Validity and Reliability of the Measures, and Correlation Analysis

Confirmatory factor analysis results showed that the 10-factor model had a good fit to the data:  $\chi^2(df = 359) = 753.6$ , IFI = .90, CFI = .90, RMSEA = .06. On the contrary, the one-factor model fitted the data poorly:  $\chi^2(df = 404) = 2549.1$ , IFI = .44, CFI = .44, RMSEA = .13. Thus, the 10-factor model was significantly supported:  $\Delta\chi^2(\Delta df = 45) = 1795.5$ ,  $p < .001$ . The reliability coefficients of the measures were good (0.82–0.92). The Cronbach's Alpha values of all the measures ranged from .67 to .88, thus indicating a good reliability and internal consistence of the measure items. Correlation analysis showed that all the three empowerment components (*i.e.* opportunity, resources, and support) were negatively related to the three burnout dimensions (emotional exhaustion,  $r = -.173$ ,  $-.267$ ,  $-.207$ ,  $p < .01$ , respectively; cynicism,  $r = -.268$ ,  $-.222$ ,  $-.295$ ,  $p < .01$ , respectively; personal inefficacy,  $r = -.358$ ,  $-.289$ ,  $-.293$ ,  $p < .01$ , respectively). Workload was positively related to emotional exhaustion ( $r = .492$ ,  $p < .01$ ) and cynicism ( $r = .278$ ,  $p < .01$ ). Job control, team communication, and team efficacy were negatively related to all the burnout dimensions (emotional exhaustion,  $r = -.239$ ,  $-.226$ ,  $-.302$ ,  $p < .01$ , respectively; cynicism,  $r = -.324$ ,  $-.357$ ,  $-.207$ ,  $p < .01$ , respectively; personal inefficacy,  $r = -.182$ ,  $-.247$ ,  $-.296$ ,  $p < .01$ , respectively).

Table 2. Interaction effect of organizational empowerment.

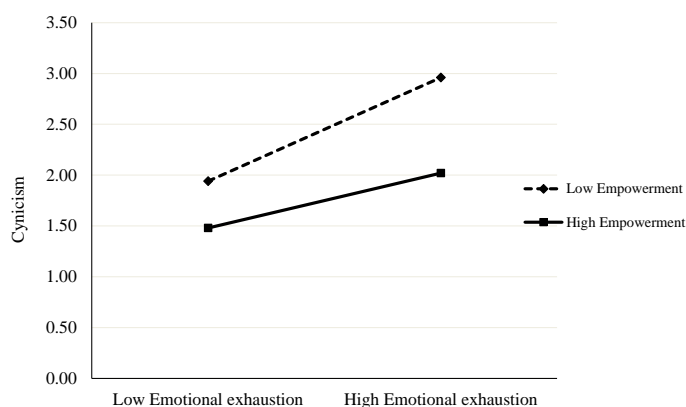
Cynicism (dependent variable)	$\beta$	SE	t	p
Constant	2.11	.30	7.02	<.001
Clinical area <sup>a</sup>	-.21	.14	-1.50	.136
Age <sup>a</sup>	-.03	.06	-.54	.586
Organizational tenure <sup>a</sup>	.08	.10	.83	.409
Emotional exhaustion	.39	.05	8.10	<.001
Empowerment	-.35	.09	-3.92	<.001
Exhaustion×Empowerment	-.12	.06	-2.14	<.05

Note. N=307. <sup>a</sup>Control variables.

### Moderating and Mediating Analysis

The results showed that the positive relationship between emotional exhaustion and cynicism was significantly moderated by organizational empowerment ( $\beta = -.12$ ,  $p < 0.05$ ) (see Table 2 for the results). Thus, hypothesis 1 was supported. Regression lines for the relationship between emotional exhaustion and cynicism at the low and high levels of organizational empowerment were plotted. The results showed that the form of the interaction was in the expected direction (Fig. 1). Nurses who referred high levels of exhaustion had high level of cynicism and this association was

stronger when the perception of organizational empowerment was low (simple slope for low value of empowerment = 0.49, 95% CI = 0.36–0.61,  $t = 7.75$ ,  $p < .001$ ). On the contrary, the relationship was significantly less strong when empowerment was high (simple slope for high value of empowerment = 0.29, 95% CI = -0.15–0.43,  $t = 4.12$ ,  $p < .001$ ).



**Fig. (1).** Moderating effect of organizational empowerment on the relationship between emotional exhaustion and cynicism.

Table 3 shows the results of the mediation test. We found that the indirect effect of team communication on personal inefficacy through perceived team efficacy was significant (-.22 [95% CI = -.10, -.35]). In other words, team communication was positively related to team efficacy which in turn was negatively associated to personal inefficacy.

**Table 3.** Mediating effect of perceived team efficacy.

Model	$\beta$	SE	t	p
Team communication to team efficacy	.68	.05	13.53	<.001
Direct effects of team efficacy on personal inefficacy	-.32	.08	-3.93	<.001
Total effect of team communication on personal inefficacy	-.27	.07	-3.69	<.001
Direct effect of team communication on personal inefficacy	-.05	.09	-.54	.587
Partial effect of control variables on personal inefficacy				
Clinical area <sup>a</sup>	-.17	.11	-1.44	.151
Age <sup>a</sup>	.01	.05	.11	.908
Organizational tenure <sup>a</sup>	-.10	.08	-1.21	.227

Note. N=307. <sup>a</sup>Control variables.

## DISCUSSION

Burnout is a high risk for all organizations in terms of staff health, business and productivity. Therefore, it is appropriate to adopt a proactive approach to maintaining minimum levels of burnout before it could reach its highest form, thus reducing the risk of developing adverse effects on staff health. In effect, burnout is different from stress not only because of consequences at individual-level such as dissatisfaction, anxiety and tension, but also for the negative impact on interpersonal relationships, which generates cynicism and emotional detachment towards patients.

Significant differences were found when we compared nurses who refer low and moderate/high burnout according to working characteristics. Specifically, the conditions associated with moderate/high emotional exhaustion in nurses are high workload, limited (human and time) resources, support to effectively perform the job, as well as poor team communication and job control. Moderate/high levels of cynicism are associated with all the working life variables we analyzed. This would mean that cynicism is fueled by both structural and relationship aspects of the work. The staff's low efficacy is experienced by all those workers who-in addition to perceive low levels of empowerment-perceive a poor communication and team efficacy. No significant relationship has been found with workload. This could mean that quality of work-which implies a time and resources adequacy to yield effective results-has a more important impact on perceived efficacy than quantity of work. The results of the correlation analysis suggest that an individual's perception of organizational empowerment is significantly associated with a reduction in cynicism. Furthermore, we have noted that the more nurses experience occasions of high workload and low job control, the higher is burnout.

The results from moderation analysis show that emotional exhaustion interacts with empowerment in the relationship with cynicism. Specifically, when empowerment level is high, the positive association between exhaustion and cynicism is significantly weak. On the contrary, when organizational empowerment was low, that association is strong. Thus, these findings highlight the important role of empowerment as protection factor capable to buffer the effect of exhaustion and reduce cynicism behavior. The results from mediation analysis show the indirect effect of team communication on personal inefficacy through team efficacy mediating role. In other words, quality of team communication increases team efficacy which, in turn, decreases personal inefficacy. This finding shows that personal (in)efficacy is strongly related to the whole team efficacy, and highlights the importance to promote good relationships among team members whose activity has to be efficaciously coordinated and synergic.

### Limitation

The present study has some limitations. First, a convenience sample has been used. The questionnaire has been administered only to nurses who have given their consent to participate. This can limit the generalizability of the results, thus reducing external validity of the study. Another limitation is represented by the use of a self-reported questionnaire which may yield a bias related to social desirability and common method [39]. Future studies should reduce the problems associated with this method by integrating individual perception data with objective data (*e.g.*, unit performance) and assessments by supervisors. Finally, this study includes a cross-sectional design type and we are unable to examine the causal effect of the relationship between variables. This effect would be better analyzed through longitudinal studies, which would add something more about the sequential process of burnout based on the model tested in this study.

### Managerial Implications

This study contributes to the literature through the identification of risk factors associated with burnout to plan appropriate preventive interventions in line with the Italian law on health and safety protection of workers [40]. The law introduces the obligation to consider stress as a potential risk that originates from an organizational dysfunction with repercussions on staff behavior (*e.g.* absenteeism, turnover, negative health effects) and consequently on the quality of patient care. Costs due to excessive absenteeism and reduced quality of work are too high for all organizations. On the other hand, empowerment strategies [20, 21] are often used by organizations to increase workers' job control. In effect, opportunities for growth and development can increase one's own ability to easily manage challenging and complex situations, thus limiting the burnout risk. This study adds something more by showing the protective role of empowerment which buffers the effect of exhaustion on cynicism. This finding can sensitize organizations to plan empowerment strategies, especially in nursing units where workload is inevitable. Also, we found that quality of communication among staff increases team efficacy, which is directly related to personal (in)efficacy sense. Thus, a way to reduce burnout phenomenon is to promote effective collaborative relationship among team members. This is important not only because poor relationships among staff members are associated with reduced work efforts and the work quality [41], but also for their impact on workers' psychosocial well-being and risk of clinical errors for patients [42, 43].

We are aware that a complete absence of burnout in work environments is not plausible. However, the results of this study suggest that the phenomenon can be maintained at low levels when organizations activate strategies for reducing misfit between an individual and his/her work. This means that there is a part of containable risk and organizations must be able to assess it by taking into account specific needs of each unit. Some intervention strategies to manage the risk may include participating actively in decision-making and defining organizational goals, which can have a positive impact on individual work motivation [44]. Furthermore, fostering job autonomy and control through continuing training, would allow the individuals to have more job responsibility and increase job significance. Finally, encouraging a collaborative leadership and good intra-group communication is crucial for promoting an individual's identification with the unit [45].

### Medical-legal Consideration

At the European level work-related mental disorders are still commonly considered from a preventive point of view and, although it is widely admitted that work environments can affect both physical and mental health of workers, there is no general consensus on the recognition of these disorders as work accidents (or rather as sequels of accidents at work) or occupational diseases and then on the advisability of paying compensations for such pathologies by occupational injury and disease insurance organizations. The main question arising when dealing with this issue is the

difficulty of proving the causal link between work and diseases with multifactorial nature such as mental disorders, as well as their recognition under Italian, Belgian, French and Dutch complementary systems or under Swedish proof system. Countries such as Finland, Germany and Switzerland a priori do not allow the recognition of mental disorders as occupational diseases. The classification of a mental disorder as an accident at work is even more difficult because the concept of accident implies a criterion of suddenness. Both conceptual and regulatory reasons explain the paucity of recognition of mental disorders such as PTSD and Depression by national insurances against accident at work and occupational diseases throughout Europe despite the high number of claims [46]. The above mentioned issues appear even more complicated when dealing with burnout syndrome. In fact in most European countries, unlike Sweden and the Netherlands [47], burnout has not yet been recognized as an autonomous nosographic-diagnostic entity. Then, in this scenario, the formulation of a psychiatric-DSM medical diagnosis of adjustment disorder or post-traumatic stress disorder - and not the psychological-ICD 10 classification of burnout as a “state of vital exhaustion” - is needed whenever a staff nurse claims to have developed a burnout syndrome due to his/her work context. This kind of diagnostic classification is mandatory both for pension matter, namely for granting compensation by the insurances organizations and for compensation purposes in the field of civil liability for the recognition of a temporary and/or permanent biological mental impairment in respect of which the shortcomings of the healthcare organization could have at least a concausal role in the development of the claimed mental disorder. Therefore in the European contexts, with exception of the specific Swedish and Dutch ones, burnout clinical evaluation issues with respect to the single worker are strongly still tied to the concept of psychiatric illness, with all the difficulties arising from overlapping burnout syndrome, by a clinical (symptomatic) point of view, with other well codified psychiatric disorders. Hence the difficulty to obtain the burnout medical-legal identification and then for nurses the recognition of a compensable mental impairment. Different considerations must be made when taking into account burnout syndrome with respect to the broad context of hospital environments in which healthcare administrations are required to implement risk assessment and health surveillance-as regulated, for example, by the Italian Legislative Decree number 81 of 2008 and the latest Belgian “Nouvelle législation relative aux risques psychosociaux” of April 28, 2014 and in force since September 1, 2014-with regard to the nursing staff. Data from the international scientific literature together with the results of this study show that burnout is a constantly existing phenomenon, even if with different levels of severity, in nursing staff. This is due to nurses’ exposure to an almost specific risk, namely the work stress inherent in the helping professions. Burnout risk is to be considered unavoidable but likely to be reduced through implementation of specific interventions and then kept within levels deemed “acceptable”. The importance of considering burnout syndrome in the context of a healthcare environment is not limited to the nursing staff health protection. The second medical-legal interest concerns the role that burnout could have in the incidence of litigation between hospitals and patients in the field of professional liability. Several studies have shown that there is indeed an association between working conditions responsible for burnout among nurses and the occurrence of surgical complications or death [48] and nosocomial infections [49] among patients. In this sense, it is necessary to consider the impact that burnout phenomenon may have on the incidence of nursing related errors as impending source of both patient’s harm and professional liability litigation and therefore the potential benefits for hospitals related to the proper management of this risk.

## CONCLUSION

The present work intends to provide a few suggestions about risk management strategies currently adopted in Europe and preventive interventions tailored to specific unit needs. Using appropriate methodological approaches, organizations can effectively manage psychosocial risk in health context, thus fostering a positive climate among staff, improving the quality of care while complying with the existing law provisions, as well as reducing controversy and the related costs [50].

## CONFLICT OF INTEREST

The authors confirm that this article content has no conflicts of interest.

## ACKNOWLEDGEMENTS

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